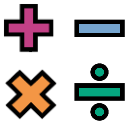
STEAM Challenges

Year 5 – Summer 2

Science 	Investigate how different mixtures can be separated using scientific methods. 1. Create a mixture → Choose one of the following mixtures (or create your own): Sand and water; rice and flour; pasta and lentils; salt and water 2. Choose a separating method → Decide which method is best for your mixture: Sieving – separating solids of different sizes, filtering – separating a solid from a liquid, evaporating – separating a dissolved solid from a liquid 3. Carry out your investigation → Carefully separate your mixture at home (with adult supervision if needed). Take photos or draw diagrams to show each step. 4. Record your learning→ Write a short explanation, including: what mixture you used, which method you chose and why, what happened during the investigation, whether the separation was successful
Technology 	You are a game designer! Your task is to use Scratch to plan and create an interactive quiz that can be played on a computer or tablet. Use our learning from class and others on the Scratch platform as inspirations - perhaps try remixing one? https://scratch.mit.edu/search/projects?q=quiz
Engineering 	**Design a Rover** You are an engineer working for a space agency. Your task is to design and build a model rover that can explore a challenging environment (such as Mars, the Moon, a desert or a jungle).
Arts 	**Set Design** Inspiration: Fausto Melotti & Rose Hurley Task: Imagine you are a set designer working for a theatre. Your job is to design a stage set for a play, dance or performance of your choice.
Maths 	Complete the arithmetic on the next page. You can edit straight onto Seesaw or take a picture.

Children in Year 5 can bring any STEAM Challenge work they complete into school or submit it on Seesaw.

$75 \times 1 =$

$6 \times 6 =$

$24.1 \times 10 =$

$400 \times 40 =$

$27 + 9 + 9 =$

$980 + 50 =$

$92 \div 8 =$

$0.4 = \frac{?}{100}$

$45 \div 5 =$

$725 - 88 =$

$10{,}981 - 448 =$

$3.7 \div 100 =$

$905 \times 0 =$

$$\begin{array}{r} 1459 \\ +\ 1447 \\ \hline \end{array}$$

$2074 \times 4 =$

$$\begin{array}{r} 529 \\ \times\ 43 \\ \hline \end{array}$$

$5{,}480 - 100 =$

$5^2 =$

$9.4 - 5.8 =$

$\frac{1}{4} \div \frac{1}{8} =$

$409 + 87 =$

$\frac{1}{7}$ of $77 =$

$0.9 = ?\%$

$5.3 + 1.95 =$

$5 \times 4 \times 2 =$

$$\begin{array}{r} 5.17 \\ \times\ 9 \\ \hline \end{array}$$

$\frac{5}{8}$ of $160 =$

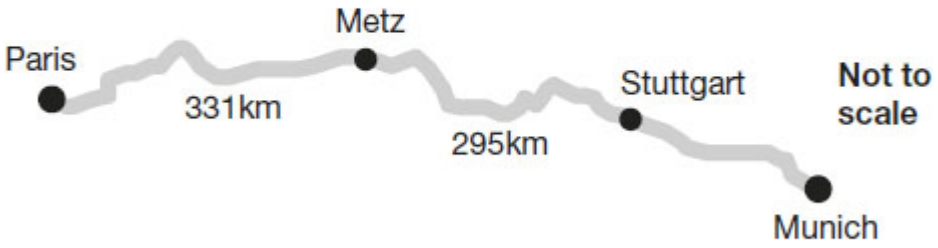
$\frac{9}{11} - \frac{3}{11} =$

$2\frac{3}{8} \times 5 =$

The total distance from Paris to Munich by road is **860 kilometres**.

There are three sections.

The distances for the first two sections are shown.



How many kilometres is the last section from Stuttgart to Munich?

Tick the fractions that are **greater than** $\frac{2}{3}$

$\frac{5}{6}$ ☐

$\frac{4}{9}$ ☐

$\frac{9}{12}$ ☐

$\frac{11}{15}$ ☐

$\frac{10}{21}$ ☐

Jack buys 2 kilograms of pears.

He spends £3.28

What is the cost of **one** kilogram of pears?

£

There were 15,961 people at a football game.

Round this number to the nearest hundred.

Circle the numbers that have **8** in the thousands place.

84,623 28,436 683,052

8,325 608,231